Section – A

Multiple Choice Questions (MCQ'S)

Q.1 Choose the correct answer for each from the given options.

1. Intersection of two __________ sets is empty always.
   (a) Non – empty (b) Equivalent (c) Power (d) Discount
2. For all x,y , xy = xy, This is _________ property w.r.t Multiplication.
   (a) Commutative (b) Distributive (c) Associative (d) Reflexive
3. $\log_x \times \log_a =$ ___________
   (a) 0 (b) 1 (c) – 1 (d) Infinite
4. $\sqrt{x^2+2xy+y^2}$ is a / an ___________ expression.
   (a) Rational (b) Irrational (c) Polynomial (d) Monomial
5. Square roots(s) $x^2+2+\frac{1}{x^2}$ is / are ________.
   (a) $x+\frac{1}{x}$ (b) $-x-\frac{1}{x}$
   (c) Both (a) and (b) (d) None of these
6. The graph of these equation $x+y=5$ and $x+2y=9$ represents lines l_1 and l_2 intersecting each other at point _________.
   (a) $(4,1)$ (b) $(-4,-1)$ (c) $(1,4)$ (d) $(3,2)$
7. If $A=\begin{bmatrix}5 & 6\\3 & -1\end{bmatrix}$, then A' = ____________
   (a) $\begin{bmatrix}-1 & 6\\3 & 5\end{bmatrix}$ (b) $\begin{bmatrix}-1 & 3\\6 & 5\end{bmatrix}$ (c) $\begin{bmatrix}5 & 3\\6 & -1\end{bmatrix}$ (d) $\begin{bmatrix}3 & -1\\5 & 6\end{bmatrix}$.
8. If $a-x=b$ and $c+x=d$ then equation ________ will be the relation free from x.
   (a) $a+c=b+d$ (b) $a+b=c+d$
   (c) $a-c=b-d$ (d) $a+b+c+d=0$
9. __________ is a commensurable ratie.
   (a) $\sqrt{4}:\sqrt{36}$ (b) $\sqrt{9}:\sqrt{2}$ (c) $\sqrt{5}:\sqrt{25}$ (d) None of these
10. Median of the data 12, 10, 11, 13, 9, 19 is ___________.
    (a) 11.5 (b) 12.5 (c) 10.5 (d) 10
11. If the vertex and one arm are common of two angles then they are called _________.
    (a) Adjacent Angles (b) Supplementary Angles
    (c) Complementary Angles (d) Congruent Angles
12. _________ Chords (s) can be draw in a circle from a point of a circle.
    (a) Only One (b) Infinite (c) No (d) Two
13. In two similar triangles __________ are congruent.
    (a) Angles (b) Areas (c) Medians (d) All of these
14. A circle which touches one side of a triangle externally and two sides product internally is called ___________.
    (a) Circum – Circle (b) In-centre (c) In-Circle (d) Escribed Circle
15. Opposite angles of a cyclic quadrilateral are __________.
    (a) Always equal (b) Complementary
    (c) Supplementary (d) Always right angles
16. The point through which the medians of a triangle pass is called _________.
    (a) Centroid (b) In-centre (c) Circum centre (d) None of these
17. $xy+xy-2=$ __________
    (a) $(xy-1)(xy+1)$ (b) $(xy-1)(xy-1)$
    (c) $(xy-2)(xy+1)$ (d) $(xy-1)(xy+2)$
18. $\operatorname{cosec}(mB)=$ _________
    (a) $\sin(90-mB)$ (b) $\cos(90-mB)$
    (c) $\sec(90-mB)$ (d) $\tan(90-mB)$
19. $x'-x'+2=$ ______ .
    (a) $(x-1)(x+2x+2)$ (b) $(x+1)(x'-2x-2)$
    (c) $(x+1)(x'+2x-2)$ (d) $(x+1)(x'-2x+2)$
20. $\frac{\sqrt{1-\cos^2 x}}{\cos x}=$ ____________.
    (a) $\cot x$ (b) $\sec x$ (c) $\tan x$ (d) $\sin x$